CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09/831,622

CRF Processing Date: 500
Edited by: _____
Verified by: _____ (STIC sta:

ENTERED

☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically: _____

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included: _____

☐ Deleted extra, invalid, headings used by an applicant, specifically: _____

☐ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically: _____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically: _____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☑ Other: *Corrected invalid amino acid numbering. Seq #6.*

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

```
              RAW SEQUENCE LISTING              DATE: 06/05/2001
              PATENT APPLICATION:  US/09/831,622    TIME: 14:15:01

              Input Set : A:\Cpg.pto
              Output Set: C:\CRF3\06052001\I831622.raw

    2 <110> APPLICANT: Takeda Chemical Industries, Ltd.
    4 <120> TITLE OF INVENTION: Novel Protein And Its Use
    6 <130> FILE REFERENCE: 2569WO0P
C--> 8 <140> CURRENT APPLICATION NUMBER: US/09/831,622
C--> 8 <141> CURRENT FILING DATE: 2001-05-11
    8 <150> PRIOR APPLICATION NUMBER: JP 10-323199
    9 <151> PRIOR FILING DATE: 1998-11-13
   10 <150> PRIOR APPLICATION NUMBER: JP 10-346925
   11 <151> PRIOR FILING DATE: 1998-12-07
   13 <160> NUMBER OF SEQ ID NOS: 8
   15 <210> SEQ ID NO: 1
   16 <211> LENGTH: 1466
   17 <212> TYPE: DNA
   18 <213> ORGANISM: Mouse
   20 <400> SEQUENCE: 1
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   22 atgatagagg acccaggacc accccacct tccccattac tagggttgaa gccattgcag  120
   23 ctgttagaag tgaaagcaag gggaagattt ggttgtgtct ggaaagccca gttgctcaat  180
   24 gaatatgtgg ctgtcaaaat atttccaata caggacaaac agtcctggca gaatgaatat  240
   25 gaagtctata gtctacctgg aatgaagcat gagaacatac tacagttcat tggtgcagag  300
   26 aaaagaggca ccagtgtgga tgtggacctg tggctaatca cagcatttca tgaaaagggc  360
   27 tcactgtcag actttcttaa ggctaatgtg gtctcttgga atgaactttg tcatattgca  420
   28 gaaaccatgg ctagaggatt ggcatattta catgaggata tacctggctt aaaagatggc  480
   29 cacaagcctg caatctctca caggacatc aaaagtaaaa atgtgctgtt gaaaaacaat  540
   30 ctgacagctt gcattgctga ctttgggttg gccttaaagt tcgaggctgg caagtctgca  600
   31 ggtgacaccc atgggcaggt tggtacccgg aggtatatgg ctccagaggt gttggagggt  660
   32 gctataaact tccaaaggga cgcatttctg aggatagata tgtacgccat gggattagtc  720
   33 ctatgggaat tggcttctcg ttgcactgct gcagatggac ccgtagatga gtacatgtta  780
   34 ccatttgagg aagaaattgg ccagcatcca tctcttgaag atatgcagga agttgttgtg  840
   35 cataaaaaaa agaggcctgt tttaagagat tattggcaga acatgcagg aatggcaatg  900
   36 ctctgtgaaa cgatagaaga atgttgggat catgatgcag aagccaggtt atcagctgga  960
   37 tgtgtaggtg aaagaattac tcagatgcaa agactaacaa atatcattac tacagaggac 1020
   38 attgtaacag tggtcacaat ggtgacaaat gttgactttc ctcccaaaga atctagtcta 1080
   39 tgatggtggc accgtctgta cacactgagg actgggactc tgaactggag ctgctaagct 1140
   40 aaggaaagtg cttagttgat tttctgtgtg aaatgagtag gatgcctcca ggacatgtac 1200
   41 gcaagcagcc ccttgtggaa agcatggatc tgggagatgg atctgggaaa cttactgcat 1260
   42 cgtctgcagc acagatatga agaggagtct aagggaaaag ctgcaaactg taaagaactt 1320
   43 ctgaaaatgt actcgaagaa tgtggccctc tccaaatcaa ggatcttttg gacctggcta 1380
   44 atcaagtatt tgcaaaactg acatcagatt tcttaatgtc tgtcagaaga cactaattcc 1440
   45 ttaaatgaac tactgctatt tttttt                                       1466
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   50 <213> ORGANISM: Mouse
   52 <400> SEQUENCE: 2
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 55 acgtgcgctg ccgccaacgc ctcccggccg cttccggctc tgatgcctga gcgaatcaca  180
 56 ggcgagctcc cgggaagatc ccgctctgag gctccgcccc cggacagggc cccgcccacc  240
 57 tcatagctct tttcctcagc cgccccctcc ttccttctcg gctcaactag gtcagcgcaa  300
 58 ggtgatcccg gagagcgggg cggcggggac cgctcctcct gttacttatc gagcgcgcgc  360
 59 tccctcccga gcctcacacc ctcgcttcgc cctttttttt ccactgtcca ggaactggtt  420
 60 ccctccttcc tcttccacct gccctacctt ctccagagat ccgacgtggc gattagagtt  480
 61 ctcagcgtca cactgacttc taggcaacta gcctagactg gagctgcgtg ttgtgggaac  540
 62 cccgcggcag tagttgagca tcaggctctt accttggagg tggaggggtg agaagaatag  600
 63 aggaagaagg gataagtcag aggagggcct gaacaactag ccctctatt ggcctgcttt  660
 64 gggtgagcat tcagtgagtg tgtttaaaaa aaaaaaggga gggaaaacaa aagacctcag  720
 65 gagcagtttt gtgttgctgt gtctggcttc aagaagaaaa ttctagacat ttatgccggc  780
 66 aagaccaaag ctcagctaag actacttctc ccaagaagat aattgtatca gaggatgggt  840
 67 tggatcagta caggtggttt gaggagacgc tgacagagga ccatggaaag gtgggagagg  900
 68 acgcgcggct cctgggcttc ctctgagctc agctccaggc accacaaggc cacataagga  960
 69 gggtgaggtc cctggagtgg actacatttt cataaccgtt gaggagttta tggaattgga 1020
 70 gaaaagtggt gctctcctag aaagcgggac ctatgaagac aactactacg gtaccccgaa 1080
 71 gcctccagct gaaccagcac cattattaaa tgtaacagac cagatacttc cgggagctac 1140
 72 tccaagtgct gaggggaagc ggaaaagaaa taagtcagtg accaacatgg agaaagcaag 1200
 73 tatagagcct ccagaggagg aagaagaaga aaggcctgta gtcaatggaa acggcgtggt 1260
 74 cataacccca gaatccagtg aacatgaaga caaaagtgca ggtgcctcag gggagacacc 1320
 75 ctcccagcct taccctgcac ccgtgtacag ccagcccgaa gagctcaagg accagatgga 1380
 76 cgatacaaag c                                                      1391
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 79 <211> LENGTH: 1431
 80 <212> TYPE: DNA
 81 <213> ORGANISM: Mouse
 83 <400> SEQUENCE: 3
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 85 accataattg gtggagacga gccggatgag tttctacagg tgaaaagtgt gatcccggat  120
 86 gggcctgccg cacaggatgg gaaaatggag acaggtgatg tcattgtcta tattaatgaa  180
 87 gtttgtgtcc ttggacacac tcatgcagat gttgtcaaac ttttccagtc tgttcctatt  240
 88 ggtcagagtg tcaacttggt gttgtgtcgt ggctaccctt tgccctttga ccctgaagat  300
 89 cctgctaaca gcatggtgcc accccttgca ataatggaga ggccacctcc ggtgatggtc  360
 90 aatggaagac ataactatga aacatacttg gaatacattt ctcggacctc acagtcggtc  420
 91 ccagatatta cagaccggcc acctcattct ttgcactcca tgccagctga cggccagcta  480
 92 gatggcacgt atccaccacc cgtccatgac gacaatgtgt ctatggcttc gtctggagcc  540
 93 actcaagctg aacttatgac cttaaccatt gtgaaaggtg cccagggatt tggctttact  600
 94 attgccgaca gtcccacggg acagcgggtg aaacaaatcc ttgacattca gggatgccct  660
 95 gggctgtgtg aaggagacct cattgttgag atcaaccaac agaatgtaca gaacctgagc  720
 96 catacagaag tagtggatat acttaaggac tgccccgttg gaagtgagac ttctttaatc  780
 97 atccatcgag gaggtttctt ttctccatgg aaaactccaa agcctatgat ggaccgatgg  840
 98 gagaaccaag gcagtccaca aacaagttta tctgctccgg ccgtcccaca gaacctgccc  900
 99 ttcccacctg cccttcacag gagctccttt cctgattcaa cagaggcctt tgacccacgg  960
100 aagcctgacc catatgagct ctacgagaaa tcgagagcca tttatgaaag taggcaacaa 1020
101 gtgccaccca ggaccagttt tcgaatggat tcctctggtc cagattataa ggaactggat 1080
102 gttcaccttc ggaggatgga gtctggattt ggctttagaa tccttggggg agatgaacct 1140
103 ggacagccta ttttgatcgg agccgtcatt gccatgggct cagctgacag agacggccgt 1200
104 ctacacccag gagatgagct tgtctatgtc gatgggatcc cagtggctgg caagacccac 1260
105 cgctatgtca tcgacctcat gcaccacgcg cccgcaatg ggcaggttaa cctcactgtg 1320
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Output Set: C:\CRF3\06052001\I831622.raw

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107 gtatcaactc accacagctc tccgcgcagt gactatgcca cctactccaa c          1431
109 <210> SEQ ID NO: 4
110 <211> LENGTH: 1085
111 <212> TYPE: DNA
112 <213> ORGANISM: Mouse
114 <400> SEQUENCE: 4
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116 gccaaactca aagtgggcga ccgtatctta gcagtcaacg gccagtctat catcaacatg  120
117 cctcacgctg acattgtgaa gctcatcaag gacgccggtc tcagtgtcac ccttcgcatc  180
118 attcctcagg aggagctcaa cagcccaaca tcagcaccca gttcagagaa acagagcccc  240
119 atggcccagc agcacagccc tctggcccag cagagtcctc tggcccagcc aagccccgcc  300
120 acccccaaca gcccagtcgc acagccagct cctccccaac ctctccagct gcaaggacac  360
121 gaaaatagtt acaggtcaga agttaaagcg aggcaagatg tgaagccaga catccggcag  420
122 cctcccttca cagactacag gcagcccccg ctggactaca ggcagccccc gggaggagac  480
123 tactcacagc ccccaccctt ggactacagg cagcactctc cagacaccag gcagtaccct  540
124 ctgtcagact acaggcagcc acaggatttt gattatttca ctgtggacat ggagaaagga  600
125 gccaaaggat ttggattcag cattcgtgga ggaagggaat acaagatgga tctgtatgtg  660
126 ttgagattgg cagaggatgg gccagccata aggaacggca ggatgagggt aggagatcag  720
127 atcattgaaa taaatgggga aagcacacga gacatgaccc acgccagagc aatagaactc  780
128 atcaagtctg gaggaagaag agtgcggctg ctgctgaaga gaggcacggg gcaggtcccg  840
129 gagtatggaa tggtaccttc cagcctctcc atgtgcatga aaagtgacaa gcatgggtcc  900
130 ccatatttct acttactggg ccaccctaaa gacacgacga accccacgcc tggagtgctg  960
131 ccgctgccgc cgccccaggc ctgccggaag taggcgtctc cctcgaagac atcctctctc 1020
132 cattctctcc atcacatcca gccccaccct ccgacccttc ccaccagata ggcccagacc 1080
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133 caact
135 <210> SEQ ID NO: 5
136 <211> LENGTH: 1161
137 <212> TYPE: PRT
138 <213> ORGANISM: Mouse
140 <400> SEQUENCE: 5
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143 Pro Gly Leu Pro Leu Ser Ser Ala Pro Gly Thr Thr Arg Pro His Lys
144              20                  25                 30
145 Glu Gly Glu Val Pro Gly Val Asp Tyr Ile Phe Ile Thr Val Glu Glu
146          35                  40                 45
147 Phe Met Glu Leu Glu Lys Ser Gly Ala Leu Leu Glu Ser Gly Thr Tyr
148      50                  55                 60
149 Glu Asp Asn Tyr Tyr Gly Thr Pro lys Pro Pro Ala Glu Pro Ala Pro
150  65                  70                 75                 80
151 Leu Leu Asn Val Thr Asp Gln Ile Leu Pro Gly Ala Thr Pro Ser Ala
152                  85                  90                 95
153 Glu Gly Lys Arg Lys Arg Asn Lys Ser Val Thr Asn Met Glu Lys Ala
154              100                 105                110
155 Ser Ile Glu Pro Pro Glu Glu Glu Glu Glu Arg Pro Val Val Asn
156          115                 120                125
157 Gly Asn Gly Val Val Ile Thr Pro Glu Ser Ser Glu His Glu Asp Lys
158          130                 135                140
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159 Ser Ala Gly Ala Ser Gly Glu Thr Pro Ser Gln Pro Tyr Pro Ala Pro
160 145             150             155             160
161 Val Tyr Ser Gln Pro Glu Glu Leu Lys Asp Gln Met Asp Asp Thr Lys
162             165             170             175
163 Pro Thr Lys Pro Glu Glu Asn Glu Asp Ser Asp Pro Leu Pro Asp Asn
164             180             185             190
165 Trp Glu Met Ala Tyr Thr Glu Lys Gly Glu Val Tyr Phe Ile Asp His
166         195             200             205
167 Asn Thr Lys Thr Thr Ser Trp Leu Asp Pro Arg Leu Ala Lys Lys Ala
168     210             215             220
169 Lys Pro Pro Glu Glu Cys Lys Glu Asn Glu Leu Pro Tyr Gly Trp Glu
170 225             230             235             240
171 Lys Ile Asp Asp Pro Ile Tyr Gly Thr Tyr Tyr Val Asp His Ile Asn
172             245             250             255
173 Arg Arg Thr Gln Phe Glu Asn Pro Val Leu Glu Ala Lys arg Lys Leu
174             260             265             270
175 Gln Gln His Asn Met Pro His Thr Glu Leu Gly Ala Lys Pro Leu Gln
176         275             280             285
177 Ala Pro Gly Phe Arg Glu Lys Pro Leu Phe Thr Arg Asp Ala Ser Gln
178     290             295             300
179 Leu Lys Gly Thr Phe Leu Ser Thr Thr Leu Lys Lys Ser Asn Met Gly
180 305             310             315             320
181 Phe Gly Phe Thr Ile Ile Gly Gly Asp Glu Pro Asp Glu Phe Leu Gln
182             325             330             335
183 Val Lys Ser Val Ile Pro Asp Gly Pro Ala Ala Gln Asp Gly Lys Met
184             340             345             350
185 Glu Thr Gly Asp Val Ile Val Tyr Ile Asn Glu Val Cys Val Leu Gly
186         355             360             365
187 His Thr His Ala Asp Val Val Lys Leu Phe Gln Ser Val Pro Ile Gly
188     370             375             380
189 Gln Ser Val Asn Leu Val Leu Cys Arg Gly Tyr Pro Leu Pro Phe Asp
190 385             390             395             400
191 Pro Glu Asp Pro Ala Asn Ser Met Val Pro Pro Leu Ala Ile Met Glu
192             405             410             415
193 Arg Pro Pro Pro Val Met Val Asn Gly Arg His Asn Tyr Glu Thr Tyr
194             420             425             430
195 Leu Glu Tyr Ile Ser Arg Thr Ser Gln Ser Val Pro Asp Ile Thr Asp
196         435             440             445
197 Arg Pro Pro His Ser Leu his Ser Met Pro Ala Asp Gly Gln Leu Asp
198     450             455             460
199 Gly Thr Tyr Pro Pro Pro Val His Asp Asp Asn Val Ser Met Ala Ser
200 465             470             475             480
201 Ser Gly Ala Thr Gln Ala Glu Leu Met Thr Leu Thr Ile Val Lys Gly
202             485             490             495
203 Ala Gln Gly Phe Gly Phe Thr Ile Ala Asp Ser Pro Thr Gly Gln Arg
204             500             505             510
205 Val Lys Gln Ile Leu Asp Ile Gln Gly Cys Pro Gly Leu Cys Glu Gly
206         515             520             525
207 Asp Leu Ile Val Glu Ile Asn Gln Gln Asn Val Gln Asn Leu Ser His
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RAW SEQUENCE LISTING   DATE: 06/05/2001
PATENT APPLICATION: US/09/831,622   TIME: 14:15:01

Input Set : A:\Cpg.pto
Output Set: C:\CRF3\06052001\I831622.raw

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210 545                    550                    555                    560
211 Ser Leu Ile Ile His Arg Gly Gly Phe Phe Ser Pro Trp Lys Thr Pro
212                    565                    570                    575
213 Lys Pro Met Met Asp Arg Trp Glu Asn Gln Gly Ser Pro Gln Thr Ser
214                    580                    585                    590
215 Leu Ser Ala Pro Ala Val Pro Gln Asn Leu Pro Phe Pro Pro Ala Leu
216                    595                    600                    605
217 His Arg Ser Ser Phe Pro Asp Ser Thr Glu Ala Phe Asp Pro Arg Lys
218                    610                    615                    620
219 Pro Asp Pro Tyr Glu Leu Tyr Glu Lys Ser Arg Ala Ile Tyr Glu Ser
220 625                    630                    635                    640
221 Arg Gln Gln Val Pro Pro Arg Thr Ser Phe Arg Met Asp Ser Ser Gly
222                    645                    650                    655
223 Pro Asp Tyr Lys Glu Leu Asp Val His Leu Arg Arg Met Glu Ser Gly
224                    660                    665                    670
225 Phe Gly Phe Arg Ile Leu Gly Gly Asp Glu Pro Gly Gln Pro Ile Leu
226                    675                    680                    685
227 Ile Gly Ala Val Ile Ala Met Gly Ser Ala Asp Arg Asp Gly Arg Leu
228                    690                    695                    700
229 His Pro Gly Asp Glu Leu Val Tyr Val Asp Gly Ile Pro Val Ala Gly
230 705                    710                    715                    720
231 Lys Thr His Arg Tyr Val Ile Asp Leu Met His His Ala Ala Arg Asn
232                    725                    730                    735
233 Gly Gln Val Asn Leu Thr Val Arg Arg Lys Val Leu Cys Gly Gly Glu
234                    740                    745                    750
235 Pro Cys Pro Glu Asn Gly Arg Ser Pro Gly Ser Val Ser Thr His His
236                    755                    760                    765
237 Ser Ser Pro Arg Ser Asp Tyr Ala Thr Tyr Ser Asn Ser Asn His Ala
238                    770                    775                    780
239 Ala Pro Ser Ser Asn Ala Ser Pro Pro Glu Gly Phe Ala Ser His Ser
240 785                    790                    795                    800
241 Leu Gln Thr Ser Asp Val Val Ile His Arg Lys Glu Asn Glu Gly Phe
242                    805                    810                    815
243 Gly Phe Val Ile Ile Ser Ser Leu Asn Arg Pro Glu Ser Gly Ala Thr
244                    820                    825                    830
245 Ile Thr Val Pro His Lys Ile Gly Arg Ile Ile Asp Gly Ser Pro Ala
246                    835                    840                    845
247 Asp Arg Cys Ala Lys Leu Lys Val Gly Asp Arg Ile Leu Ala Val Asn
248 850                    855                    860
249 Gly Gln Ser Ile Ile Asn Met Pro His Ala Asp Ile Val Lys Leu Ile
250 865                    870                    875                    880
251 Lys Asp Ala Gly Leu Ser Val Thr Leu Arg Ile Ile Pro Gln Glu Glu
252                    885                    890                    895
253 Leu Asn Ser Pro Thr Ser Ala Pro Ser Ser Glu Lys Gln Ser Pro Met
254                    900                    905                    910
255 Ala Gln Gln His Ser Pro Leu Ala Gln Gln Ser Pro Leu Ala Gln Pro
256                    915                    920                    925
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VERIFICATION SUMMARY　　　　　　　DATE: 06/05/2001
PATENT APPLICATION: **US/09/831,622**　　TIME: 14:15:02

Input Set : **A:\Cpg.pto**
Output Set: **C:\CRF3\06052001\I831622.raw**

L:8 M:270 C: Current Application Number differs, Replaced Current Application No
L:8 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:21 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=1
L:53 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=2
L:84 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=3
L:115 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=4
L:291 M:283 W: Missing Blank Line separator, <400> field identifier
L:436 M:283 W: Missing Blank Line separator, <400> field identifier
L:437 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=7
L:500 M:283 W: Missing Blank Line separator, <400> field identifier
L:501 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=8

RAW SEQUENCE LISTING   DATE: 05/23/2001
PATENT APPLICATION: US/09/831,622   TIME: 16:06:35

Input Set : A:\Sequence Listing.txt
Output Set: C:\CRF3\05232001\I831622.raw

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      2 <110> APPLICANT: Takeda Chemical Industries, Ltd.
W-->  3 <120> TITLE OF INVENTION: Novel Protein And Its Use
W-->  4 <130> FILE REFERENCE: 2569W00P
C-->  5 <140> CURRENT APPLICATION NUMBER: US/09/831,622
C-->  5 <141> CURRENT FILING DATE: 2001-05-11
      5 <150> PRIOR APPLICATION NUMBER: JP 10-323199
      6 <151> PRIOR FILING DATE: 1998-11-13
      7 <150> PRIOR APPLICATION NUMBER: JP 10-346925
      8 <151> PRIOR FILING DATE: 1998-12-07
W-->  9 <160> NUMBER OF SEQ ID: 8
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Does Not Comply
Corrected Diskette Needed

See p. 4

ERRORED SEQUENCES

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    273 <210> SEQ ID NO: 6
    274 <211> LENGTH: 1112
    275 <212> TYPE: PRT
    276 <213> ORGANISM: Mouse
W-->277 <400> SEQUENCE: 6
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    280 Asp Asn Tyr Tyr Gly Thr Pro lys Pro Pro Ala Glu Pro Ala Pro Leu
    281             20                  25                  30
    282 Leu Asn Val Thr Asp Gln Ile Leu Pro Gly Ala Thr Pro Ser Ala Glu
    283             35                  40                  45
    284 Gly Lys Arg Lys Arg Asn Lys Ser Val Thr Asn Met Glu Lys Ala Ser
    285         50                  55                  60
    286 Ile Glu Pro Pro Glu Glu Glu Glu Glu Glu Arg Pro Val Val Asn Gly
    287 65                  70                  75                  80
    288 Asn Gly Val Val Ile Thr Pro Glu Ser Ser Glu His Glu Asp Lys Ser
    289                 85                  90                  95
    290 Ala Gly Ala Ser Gly Glu Thr Pro Ser Gln Pro Tyr Pro Ala Pro Val
    291                 100                 105                 110
    292 Tyr Ser Gln Pro Glu Glu Leu Lys Asp Gln Met Asp Asp Thr Lys Pro
    293             115                 120                 125
    294 Thr Lys Pro Glu Glu Asn Glu Asp Ser Asp Pro Leu Pro Asp Asn Trp
    295         130                 135                 140
    296 Glu Met Ala Tyr Thr Glu Lys Gly Glu Val Tyr Phe Ile Asp His Asn
    297 145                 150                 155                 160
    298 Thr Lys Thr Thr Ser Trp Leu Asp Pro Arg Leu Ala Lys Lys Ala Lys
    299                 165                 170                 175
    300 Pro Pro Glu Glu Cys Lys Glu Asn Glu Leu Pro Tyr Gly Trp Glu Lys
    301             180                 185                 190
    302 Ile Asp Asp Pro Ile Tyr Gly Thr Tyr Tyr Val Asp His Ile Asn Arg
    303             195                 200                 205
    304 Arg Thr Gln Phe Glu Asn Pro Val Leu Glu Ala Lys arg Lys Leu Gln
    305         210                 215                 220
```

Input Set : A:\Sequence Listing.txt
Output Set: C:\CRF3\05232001\I831622.raw

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307 225   230   235   240
308 Pro Gly Phe Arg Glu Lys Pro Leu Phe Thr Arg Asp Ala Ser Gln Leu
309   245   250   255
310 Lys Gly Thr Phe Leu Ser Thr Thr Leu Lys Lys Ser Asn Met Gly Phe
311   260   265   270
312 Gly Phe Thr Ile Ile Gly Gly Asp Glu Pro Asp Glu Phe Leu Gln Val
313   275   280   285
314 Lys Ser Val Ile Pro Asp Gly Pro Ala Ala Gln Asp Gly Lys Met Glu
315   290   295   300
316 Thr Gly Asp Val Ile Val Tyr Ile Asn Glu Val Cys Val Leu Gly His
317 305   310   315   320
318 Thr His Ala Asp Val Val Lys Leu Phe Gln Ser Val Pro Ile Gly Gln
319   325   330   335
320 Ser Val Asn Leu Val Leu Cys Arg Gly Tyr Pro Leu Pro Phe Asp Pro
321   340   345   350
322 Glu Asp Pro Ala Asn Ser Met Val Pro Pro Leu Ala Ile Met Glu Arg
323   355   360   365
324 Pro Pro Pro Val Met Val Asn Gly Arg His Asn Tyr Glu Thr Tyr Leu
325   370   375   380
326 Glu Tyr Ile Ser Arg Thr Ser Gln Ser Val Pro Asp Ile Thr Asp Arg
327 385   390   395   400
328 Pro Pro His Ser Leu his Ser Met Pro Ala Asp Gly Gln Leu Asp Gly
329   405   410   415
330 Thr Tyr Pro Pro Pro Val His Asp Asp Asn Val Ser Met Ala Ser Ser
331   420   425   430
332 Gly Ala Thr Gln Ala Glu Leu Met Thr Leu Thr Ile Val Lys Gly Ala
333   435   440   445
334 Gln Gly Phe Gly Phe Thr Ile Ala Asp Ser Pro Thr Gly Gln Arg Val
335   450   455   460
336 Lys Gln Ile Leu Asp Ile Gln Gly Cys Pro Gly Leu Cys Glu Gly Asp
337 465   470   475   480
338 Leu Ile Val Glu Ile Asn Gln Gln Asn Val Gln Asn Leu Ser His Thr
339   485   490   495
340 Glu Val Val Asp Ile Leu Lys Asp Cys Pro Val Gly Ser Glu Thr Ser
341   500   505   510
342 Leu Ile Ile His Arg Gly Gly Phe Phe Ser Pro Trp Lys Thr Pro Lys
343   515   520   525
344 Pro Met Met Asp Arg Trp Glu Asn Gln Gly Ser Pro Gln Thr Ser Leu
345   530   535   540
346 Ser Ala Pro Ala Val Pro Gln Asn Leu Pro Phe Pro Pro Ala Leu His
347 545   550   555   560
348 Arg Ser Ser Phe Pro Asp Ser Thr Glu Ala Phe Asp Pro Arg Lys Pro
349   565   570   575
350 Asp Pro Tyr Glu Leu Tyr Glu Lys Ser Arg Ala Ile Tyr Glu Ser Arg
351   580   585   590
352 Gln Gln Val Pro Pro Arg Thr Ser Phe Arg Met Asp Ser Ser Gly Pro
353   595   600   605
354 Asp Tyr Lys Glu Leu Asp Val His Leu Arg Arg Met Glu Ser Gly Phe

RAW SEQUENCE LISTING   DATE: 05/23/2001
PATENT APPLICATION: US/09/831,622   TIME: 16:06:35

Input Set : A:\Sequence Listing.txt
Output Set: C:\CRF3\05232001\I831622.raw

```
355      610                615                620
356 Gly Phe Arg Ile Leu Gly Gly Asp Glu Pro Gly Gln Pro Ile Leu Ile
357 625                630                635                640
358 Gly Ala Val Ile Ala Met Gly Ser Ala Asp Arg Asp Gly Arg Leu His
359                645                650                655
360 Pro Gly Asp Glu Leu Val Tyr Val Asp Gly Ile Pro Val Ala Gly Lys
361                660                665                670
362 Thr His Arg Tyr Val Ile Asp Leu Met His His Ala Ala Arg Asn Gly
363           675                680                685
364 Gln Val Asn Leu Thr Val Arg Arg Lys Val Leu Cys Gly Gly Glu Pro
365      690                695                700
366 Cys Pro Glu Asn Gly Arg Ser Pro Gly Ser Val Ser Thr His His Ser
367 705                710                715                720
368 Ser Pro Arg Ser Asp Tyr Ala Thr Tyr Ser Asn Ser Asn His Ala Ala
369                725                730                735
370 Pro Ser Ser Asn Ala Ser Pro Pro Glu Gly Phe Ala Ser His Ser Leu
371                740                745                750
372 Gln Thr Ser Asp Val Val Ile His Arg Lys Glu Asn Glu Gly Phe Gly
373           755                760                765
374 Phe Val Ile Ile Ser Ser Leu Asn Arg Pro Glu Ser Gly Ala Thr Ile
375      770                775                780
376 Thr Val Pro His Lys Ile Gly Arg Ile Ile Asp Gly Ser Pro Ala Asp
377 785                790                795                800
378 Arg Cys Ala Lys Leu Lys Val Gly Asp Arg Ile Leu Ala Val Asn Gly
379                805                810                815
380 Gln Ser Ile Ile Asn Met Pro His Ala Asp Ile Val Lys Leu Ile Lys
381           820                825                830
382 Asp Ala Gly Leu Ser Val Thr Leu Arg Ile Ile Pro Gln Glu Glu Leu
383           835                840                845
384 Asn Ser Pro Thr Ser Ala Pro Ser Ser Glu Lys Gln Ser Pro Met Ala
385      850                855                860
386 Gln Gln His Ser Pro Leu Ala Gln Gln Ser Pro Leu Ala Gln Pro Ser
387 865                870                875                880
388 Pro Ala Thr Pro Asn Ser Pro Val Ala Gln Pro Ala Pro Pro Gln Pro
389                885                890                895
390 Leu Gln Leu Gln Gly His Glu Asn Ser Tyr Arg Ser Glu Val Lys Ala
391           900                905                910
392 Arg Gln Asp Val Lys Pro Asp Ile Arg Gln Pro Pro Phe Thr Asp Tyr
393           915                920                925
394 Arg Gln Pro Pro Leu Asp Tyr Arg Gln Pro Pro Gly Gly Asp Tyr Ser
395      930                935                940
396 Gln Pro Pro Pro Leu Asp Tyr Arg Gln His Ser Pro Asp Tyr Arg Gln
397 945                950                955                960
398 Tyr Pro Leu Ser Asp Tyr Arg Gln Pro Gln Asp Phe Asp Tyr Phe Thr
399                965                970                975
400 Val Asp Met Glu Lys Gly Ala Lys Gly Phe Gly Phe Ser Ile Arg Gly
401                980                985                990
402 Gly Arg Glu Tyr Lys Met Asp Leu Tyr Val Leu Arg Leu Ala Glu Asp
403           995                1000               1005
```

RAW SEQUENCE LISTING   DATE: 05/23/2001
PATENT APPLICATION: US/09/831,622   TIME: 16:06:35

Input Set : A:\Sequence Listing.txt
Output Set: C:\CRF3\05232001\I831622.raw

```
      404 Gly Pro Ala Ile Arg Asn Gly Arg Met Arg Val Gly Asp Gln Ile Ile
      405     1010             1015             1020
      406 Glu Ile Asn Gly Glu Ser Thr Arg Asp Met Thr His Ala Arg Ala Ile
      407 1025             1030             1035             1040
      408 Glu Leu Ile Lys Ser Gly Gly Arg Arg Val Arg Leu Leu Leu Lys Arg
      409             1045             1050             1055
      410 Gly Thr Gly Gln Val Pro Glu Tyr Gly Met Val Pro Ser Ser Leu Ser
E--> 411         1060             1065 ————————————1070———————
      412 Met Cys Met Lys Ser Asp Lys His Gly Ser Pro Tyr Phe Tyr Leu Leu
E--> 413         1075             1080             1085
      414 Gly His Pro Lys Asp Thr Thr Asn Pro Thr Pro Gly Val Leu Pro Leu
E--> 415     1090             1095             1100
      416 Pro Pro Pro Gln Ala Cys Arg Lys
E--> 417 1105             1110    1112
```

Amino number cannot be placed under two aminos.

Only number every 5th amino acid.

VERIFICATION SUMMARY
PATENT APPLICATION: **US/09/831,622**

DATE: 05/23/2001
TIME: 16:06:36

Input Set : **A:\Sequence Listing.txt**
Output Set: **C:\CRF3\05232001\I831622.raw**

L:3 M:283 W: Missing Blank Line separator, <120> field identifier
L:4 M:283 W: Missing Blank Line separator, <130> field identifier
L:5 M:270 C: Current Application Number differs, Replaced Current Application No
L:5 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:9 M:283 W: Missing Blank Line separator, <160> field identifier
L:10 M:283 W: Missing Blank Line separator, <210> field identifier
L:14 M:283 W: Missing Blank Line separator, <400> field identifier
L:15 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=1
L:44 M:283 W: Missing Blank Line separator, <400> field identifier
L:45 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=2
L:73 M:283 W: Missing Blank Line separator, <400> field identifier
L:74 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=3
L:102 M:283 W: Missing Blank Line separator, <400> field identifier
L:103 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=4
L:126 M:283 W: Missing Blank Line separator, <400> field identifier
L:277 M:283 W: Missing Blank Line separator, <400> field identifier
L:411 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:6
M:332 Repeated in SeqNo=6
L:422 M:283 W: Missing Blank Line separator, <400> field identifier
L:423 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=7
L:486 M:283 W: Missing Blank Line separator, <400> field identifier
L:487 M:112 C: (48) String data converted to lower case,
M:112 Repeated in SeqNo=8